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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,398	12/01/2004	Hideaki Oshima	NGS-241US	5051
23122	7590	08/04/2006	EXAMINER	
RATNERPRESTIA			A, MINH D	
P O BOX 980			ART UNIT	
VALLEY FORGE, PA 19482-0980			PAPER NUMBER	
			2821	

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/516,398

Applicant(s)

OSHIMA ET AL.

Examiner

Minh D. A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 8-9 and 15 are rejected under 35 U.S.C. 102(e) as being unpatentable by Wendt et al (US 6,614,402).

Regarding claim 1, Wendt discloses a mobile transmission antenna comprising: a planar antenna (8) comprising a first surface (10-12) on a first side of the planar antenna (8), the first surface (10-12) for receiving a vertically polarized wave propagating in a horizontal direction, the antenna being positioned inclining from a vertical direction (See figure 3); and a reflector(15) positioned in at least one of a horizontal direction or inclining from the horizontal direction by a predetermined angle, the reflector being spaced from the first side of the planar antenna by a predetermined distance. See figures 1-3, col.4, lines 20-67 to col.5, lines 1-7.

Regarding claim 2, Wendt discloses wherein the reflector (15) is positioned in close proximity to the antenna. See figures 2-3.

Regarding claim 8, Wendt discloses a mobile transmission antenna and a planar

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antenna (8) comprising a first surface on a first side of the planar antenna, the first surface for receiving a vertical polarized wave propagating in a horizontal direction, the planar antenna being a positioned inclining from a vertical direction, the method comprising the step of: positioning a reflector spaced from the planar antenna in at least one of a horizontal direction or inclining from the horizontal direction by a predetermined angle while spacing the reflector (15) from the planar antenna (8) by a predetermined distance, and selecting the predetermined distance so that the directional gain is improved, compare to a case where said reflector is not provided. See figures 1-3, col.4, lines 20-67 to col.5, lines 1-7.

Regarding claim 9, Wendt discloses a predetermined distance includes a step of positioning the reflector (15) in close proximity to the planar antenna (8). See figures 2-3.

Regarding claim 15, Wendt discloses the reflector froms a reflector image of the planar antenna. See figure 3.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-7, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Wendt et al (US 6,614,402).

Regarding claims 3 and 10, Wendt does not clearly disclose a distance between the planar antenna (8) and the reflector (15) is an integer multiple of 0.5λ , λ , being a wave-length of the ground wave received by the planar antenna.

However, this difference is not of patentable merit since the distance between the planar antenna and the reflector having an integer multiple wave-length is operated in the same manner, for improve a directional gain of the antenna. Therefore, to employ the integer multiple of 0.5λ , λ , being a wave-length of the ground wave received by the planar antenna instead of wavelength and different distance of the antenna of Wendt, upon a particular application or gain of use, would have been deemed obvious to a person skilled in the art.

Regarding claims 4-7, 11-14, Wendt essentially discloses the claimed invention but does not explicitly disclose that the predetermined angle is 0-30 degrees or 6 degree or a planar is position on an inner surface of a front glass. It would have been an obvious matter of design choice to employ Wendt in any desired interest area or environment, in order to maximize the usage of his invention, since applicant does not disclose that, all of these limitations can solve any stated problem and for any particular purpose. Therefore, it appears that the invention would not provide any improvement but merely apply the invention in different presentation.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Citation of relevant prior art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Terashima et al (US 5,675,347) and Deming et al (US 5,734,350) are cited to show an antenna system.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner

Minh A

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7/31/06

Shih-Chao Chen
SHIH-CHAO CHEN
PRIMARY EXAMINER